



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/784,855

02/23/2004

James H. Keithly

006943.00608

9428

66811 7590 01/29/2008

BANNER & WITCOFF, LTD.  
and ATTORNEYS FOR CLIENT NO. 006943  
10 SOUTH WACKER DR.  
SUITE 3000  
CHICAGO, IL 60606

EXAMINER

NGUYEN, TRINH T

ART UNIT

PAPER NUMBER

3644

MAIL DATE

DELIVERY MODE

01/29/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/784,855	<b>Applicant(s)</b> KEITHLY ET AL.	
	<b>Examiner</b> Trinh T. Nguyen	<b>Art Unit</b> 3644	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on RCE dated 10/31/07.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 20 and 22-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20,22-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination under 37 CFR 1.114 After Final Rejection***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/31/07 has been entered.

### ***Double Patenting***

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 20, and 22-53 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 20, 22-26, 28, 29, and 31-39 of copending Application No. 10/017,126. Although the conflicting claims are not identical, they are not patentably distinct from each other

Art Unit: 3644

because claim 20 (narrower) of the copending Application No. 10/017,126 “anticipates” claim 20 (broader) of the instant application. Accordingly, the copending Application No. 10/017,126 claim 20 is not patentably distinct from the instant application claim 20, since the copending Application No. 10/017,126 claim 20 requires element (i.e., a concentration of not more than 1.5 weight percent) while the instant application claim 20 only requires element (i.e., a concentration of not more than about 2 weight percent). Thus it is apparent that the more specific copending Application No. 10/017,126 claim 20 encompasses the instant application claim 20. Following the rationale in *In re Goodman* cited in the preceding paragraph, where applicant has once been filed an application or granted a patent containing a claim for the specific or narrower invention, applicant may not then obtain a second application or patent with a claim for the generic or broader invention without first submitting an appropriate terminal disclaimer.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 35-37 and 39-41 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use

Art Unit: 3644

the invention. In this case, there is no support in the original disclosure for the require limitations (i.e, “the poultry breeders to gain an average of at least about 314 grams of weight over the course of 15 days” as claimed in claims 35 and 41, “the adjusted feed conversion rate of less than about 1.381 for the poultry breeders” as claimed in claims 36 and 39, and “the adjusted feed conversion rate of less than about 1.309 for the poultry breeders” as claimed in claims 37 and 40).

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 29,49, 35-37, and 39-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Since there is no support in the original disclosure regarding the require limitations as claimed in claims 35-37 and 39-41, it is not understood what are being claimed.

In claims 29 and 49, the phrase “each in its native state as present dried citrus byproduct from juice extraction equipment” is confusing since it is unclear as to what the terms “native state” and/or “dried citrus byproduct” and/or “juice extraction equipment” intend to be encompassed (i.e. there is no mentioning/defining/supporting of such terms in claim 20).

### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 3644

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 20,27,38, and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Feeding Value of Dried Citrus Peel in Broiler Diets by S.L. Kang and J.H. Choi (hereinafter is referred to as Kang et al.).

For claims 20 and 38, Kang et al. disclose that it is old and well known to provide a process for enhancing commercial poultry breeder operations comprising:

supplying a space having an area at which poultry breeders are fed (it is inherently that some sort of space must be provided so that the poultry breeders can be confined and/or fed therein);

providing a breeder poultry feed diet composition which comprises a nutritive balanced feed composition and a citrus feed supplement, said citrus feed supplement being a citrus byproduct generated by expressing citrus juice from citrus fruit, the citrus byproduct comprising citrus peel or pulp, said citrus feed supplement being at a concentration of not more than about 2 weight percent, based on the total weight of the poultry feed diet composition (note that Kang et al.'s 2 weight percent of the citrus feed supplement concentration is a concentration of not more than about 2 weight percent as claimed); and

placing said breeder poultry feed diet composition within the area at which poultry breeders are fed, thereby having the poultry feed on the breeder poultry feed diet, wherein the poultry feed diet composition provides sufficient nutrition to permit the poultry breeders to gain weight while feeding exclusively on the poultry feed diet

composition (it is inherently performed within the process of Kang et al. during the experimental period).

For claims 27 and 44, it is inherently that Kang et al.'s citrus byproduct comprises citrus waste selected from the group consisting of citrus peel, citrus pulp, citrus flavedo, citrus albedo, citrus rag, and combinations thereof.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 22-24,28,34-37,39-42,45,46, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feeding Value of Dried Citrus Peel in Broiler Diets by Kang et al..

Regarding claims 22,23,34,42,45, and 46, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Kang et al.'s process so as to include a citrus feed supplement being at a specific concentration (i.e., a concentration of at least about 0.2 weight percent and up to about 1 weight percent, a concentration of at least about 4 pounds and up to about 16 pounds per ton, a concentration of not greater than about 1.6 weight percent) as claimed, since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233. Also, since applicant did not provide a reason and/or

showing any criticality as to why the citrus feed supplement has to be at a specific concentration as claimed (see page 14 of the instant specification, Applicant only stated that "Typically, the citrus feed supplement is at a level of not greater than about 2 weight percent. Preferably, the feed supplement according to the invention is at a level of not greater than about 1.5 weight percent. An especially preferred range is between about 0.2 weight percent and about 1 weight percent...especially preferred range is between about 4 and about 16 pounds per ton"), it is believed that through trial and error during the testing procedure that one of ordinary skill in the art comes up with a desirable citrus feed supplement concentration to meet the design criteria for forming a breeder poultry feed diet composition having a balanced feed composition and a citrus feed supplement. Furthermore, it would appear that the concentration of the citrus feed supplement in Kang et al. would provide an equally balanced feed composition and/or supplement as well.

For claim 24, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Kang et al.'s process so as to include a moisture content being at a specific content (i.e., of between about 5 and about 12 percent by weight) as claimed, since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

For claims 28 and 49, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Kang et al.'s process so as to include a particle size of about 2 mm or less, since it has been held that where

Art Unit: 3644

routine testing and general experimental conditions are present, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

For claims 36,37,39, and 40 (as best understood regarding the limitations as claimed), it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Kang et al.'s process so as to include feed diet composition at specific adjusted feed conversion rate (i.e., a rate of less than about 1.381, a rate of less than about 1.309) as claimed, since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233. Also, since applicant did not provide a reason and/or showing any criticality as to why the feed diet composition has to be provided at a specific adjusted feed conversion rate as claimed, it is believed that through trial and error during the testing procedure that one of ordinary skill in the art comes up with a desirable adjusted feed conversion rate to meet the design criteria for forming a breeder poultry feed diet composition having a balanced feed composition and a citrus feed supplement.

12. Claims 25,26,47, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feeding Value of Dried Citrus Peel in Broiler Diets by Kang et al. in view of Miller et al. (US 6783777).

As described above, Kang et al. teach all the claimed invention except for mentioning that the citrus feed supplement is in a form of flake and/or pellet.

Miller et al. teach that it is old and well known in the art of animal husbandry to provide a feed supplement in a form of either pellet, chunk, granular, particulate, flake, meal, or powder (see lines 45-57 of col. 6). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the feed supplement of Kang et al. so as to include the citrus feed supplement in a form of flake and/or pellet, in a similar manner as taught in Miller et al., so as to provide a more versatile feed supplement with variable size, shape, and/or form.

13. Claims 29,30,50 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feeding Value of Dried Citrus Peel in Broiler Diets by Kang et al. in view of Citrus Bioflavonoids in Broiler Diets by Deyoe et al.).

As described above, Kang et al. teach all the claimed invention except for mentioning that said byproduct components comprise at least one component selected from the group consisting of: (a) pectin, demethylated pectin, and combinations thereof; (b) a food grade citrus- originating acid; (c) hesperidin, other flavonoids, and combinations thereof; (d) one or more limonin glucosides other bioflavonoids and combinations thereof; (e) sinensetin, tangeretin, nobiletin, other polymethoxylated flavones, and combinations thereof; and (f) any combination of components (a)-(e).

Deyoe et al. teach that it is old and well known in the art of animal husbandry to provide a citrus feed supplement having a combination of byproduct components wherein the byproduct components comprise at least one component selected from the group consisting of: (a) pectin, demethylated pectin, and combinations thereof; (b) a food grade citrus- originating acid; (c) hesperidin, other flavonoids, and combinations

Art Unit: 3644

thereof; (d) one or more limonin glucosides other bioflavonoids and combinations thereof; (e) sinensetin, tangeretin, nobiletin, other polymethoxylated flavones, and combinations thereof; and (f) any combination of components (a)-(e) (e.g., col. 1 of page 1088 mentions flavonoids and hesperidin). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the feed supplement of Kang et al. so as to include the byproduct components, in a similar manner as taught in Deyoe et al., so as to promote protection for the broilers from bruising.

For claims 29 and 50 (as best understood regarding the limitation "each in its native state as present dried citrus byproduct from juice extraction equipment"), it appears that the byproduct components of Kang et al. as modified by Deyoe et al. (emphasis on Deyoe et al.) are in a native state and that some sort of juice extraction equipment must be used to extract the citrus juice therein.

14. Claims 31 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feeding Value of Dried Citrus Peel in Broiler Diets by Kang et al. in view of Applicant's Admitted Prior Art (as set forth in Description of Related Art of pages 1-6 of the specification, AAPA).

As described above, Kang et al. teach all the claimed invention except for mentioning that the breeder poultry feed diet composition is carried out in at least two stages including a first stage during which the poultry is fed for a length of time adequate for the poultry to grow to pullet size and a second stage during which female poultry lay eggs at least some of which are fertilized for hatching into poultry chicks.

As shown in [005] to [0012], AAPA indicates that it is old and well known in the art of animal husbandry of poultry breeder birds to carry out feed diet composition in two stages, the first stage is during which the chicks are grown into pullets and the second stage is during the female pullets come into egg laying maturity. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Kang et al. so as to include the feed diet composition is carried out in at least two stages, in a similar manner as taught in AAPA, so as to maximize feed efficiency and therefore increase the overall growth to the poultry breeder birds production.

15. Claims 32,33,52, and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feeding Value of Dried Citrus Peel in Broiler Diets by Kang et al. in view of Winstrom et al. (US 6761899).

As described above, Kang et al. teach all the claimed invention except for the step of without purifying and/or extracting the citrus byproduct present in the citrus feed supplement.

Winstrom et al. teach the process of preparing animal feed supplement wherein the process indicates that it is old and well known in the art of animal husbandry of poultry breeder birds to provide/prepare animal feed supplement without performing the step of purifying and/or isolating/extracting (see lines 8-15 of col. 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Kang et al. so as to provide/prepare animal feed supplement without performing the step of purifying and/or isolating/extracting, in a

similar manner as taught in Winstrom et al., so as to minimize the losing of the original structural properties of the overall feed supplement.

***Response to Arguments***

16. Applicant's arguments with respect to claims 20 and 22-53 have been considered but are moot in view of the new ground(s) of rejection.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trinh T. Nguyen whose telephone number is (571) 272-6906. The examiner can normally be reached on M-F (10:00 A.M to 6:00 P.M).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mansen can be reached on (571) 272-6608. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/784,855  
Art Unit: 3644

Page 13

/Trinh T Nguyen/  
Primary Examiner, Art Unit 3644  
1/24/08